

REMARKS/ARGUMENTS

I. Status of the Claims.

Claims 1-38 are pending in this application. Claims 10, 11, 15-25, and 30-36 were previously withdrawn from consideration. Independent claims 1, 26, and 37, and dependent claim 4 have been amended herein. Applicants have added new claim 39 to provide an additional scope of protection commensurate with the original disclosure. Applicants respectfully request that the above amendments be entered, and further request reconsideration of the application in light of the amendments and remarks contained herein. Antecedent basis for the amendments can be found throughout the specification. No new matter has been added.

II. Remarks Regarding Claim Objections.

In the Final Office Action, the Examiner has objected to claim 4 because the claim recites that “said low resistance fuse has thickness of about 0.0005 inches or less” while the specification teaches that “the polymer membrane 202 is a thin membrane having a thickness of about .0005 inches or less.” As requested by the Examiner, claim 4 has been amended accordingly to correct for the inadvertent informality, and Applicants respectfully request withdrawal of the objection.

III. Remarks Regarding Rejections Under 35 U.S.C. §102.

In the Final Office Action, claims 1, 4, 6-9, 12, 37, and 38 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 5,914,649 to Isono et al (hereinafter “Isono”). Applicants respectfully traverse the rejections and assert that claims 1, 4, 6-9, 12, 37, and 38 are patentable over Isono.

In particular, Applicants submit that Isono does not disclose, teach, or suggest at least the features of (i) the first intermediate insulation layer comprising at least one slot formed into a lateral end thereof, (ii) the second intermediate insulation layer comprising at least one slot formed into a lateral end thereof and corresponding to the first intermediate insulation layer slot, and (iii) the slots being metallized on the vertical face, as recited in amended claims 1 and 37.

As Applicants understand, Isono is directed to a fuse having holes 11 “drilled through the laminated product” with a plating layer 12 to “make the inner wall of the holes electrically conductive.” (Isono, 13:56-60). The ends of the insulation layers of the Isono fuse do not include slots and further do not include metallized slots. Thus, Isono does not disclose,

teach, or suggest a fuse having first and second intermediate insulation layers each comprising at least one slot formed into a lateral end thereof, wherein the slots are metallized on the vertical face.

For these reasons, Isono does not anticipate independent claims 1 and 37. Claims 4, 6-9, 12, and 38 depend either directly or indirectly from independent claims 1 or 37. Accordingly, these dependent claims, which include all the limitations of their corresponding independent claim, are allowable for at least the reasons cited above with respect to independent claims 1 and 37.

IV. Remarks Regarding Rejections Under 35 U.S.C. §103.

A. Claims 2 and 14.

In the Final Office Action, claims 2 and 14 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Isono in view of either U.S. Patent No. 5,977,860 or U.S. Patent No. 5,699,032 to Ulm Jr. et al (hereinafter “Ulm”). Applicants respectfully traverse the rejections and assert that claims 2 and 14 are patentable over Isono and Ulm.

As Applicants have explained above in Sections III, Isono does not teach a fuse having first and second intermediate insulation layers, each comprising at least one slot formed into a lateral end thereof, wherein the corresponding slots are metallized on the vertical face. Accordingly, Applicants respectfully submit that Isono does not teach or suggest all elements of Applicants’ independent claim 1. Because dependent claims 2 and 14 contain all the features of independent claim 1, the failure of Isono to teach or suggest all limitations of claim 1 prevents Isono from teaching or suggesting all limitations of claims 2 and 14, even when combined with Ulm. Accordingly, Applicants respectfully submit that claims 2 and 14 are patentable over Isono and Ulm, and thus request the withdrawal of this rejection.

B. Claims 3 and 13.

In the Final Office Action, claims 3 and 13 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Isono in view of U.S. Patent No. 5,309,625 to Onishi (hereinafter “Onishi”). Applicants respectfully traverse the rejections and assert that claims 3 and 13 are patentable over Isono and Onishi.

As Applicants have explained above in Sections III, Isono does not teach a fuse having first and second intermediate insulation layers, each comprising at least one slot formed into a lateral end thereof, wherein the corresponding slots are metallized on the vertical face.

Accordingly, Applicants respectfully submit that Isono does not teach or suggest all elements of Applicants' independent claim 1. Because dependent claims 3 and 13 contain all the features of independent claim 1, the failure of Isono to teach or suggest all limitations of claim 1 prevents Isono from teaching or suggesting all limitations of claims 3 and 13, even when combined with Onishi. Accordingly, Applicants respectfully submit that claims 3 and 13 are patentable over Isono and Onishi, and thus request the withdrawal of this rejection.

C. Claims 5, 26, and 27.

In the Final Office Action, claims 5, 26, and 27 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Isono in view of U.S. Patent No. 4,388,603 to Hassler et al (hereinafter "Hassler"). Applicants respectfully traverse the rejections and assert that claims 5, 26, and 27 are patentable over Isono and Hassler.

With respect to dependent claim 5, as Applicants have explained above in Sections III, Isono does not teach a fuse having first and second intermediate insulation layers, each comprising at least one slot formed into a lateral end thereof, wherein the corresponding slots are metallized on the vertical face. Accordingly, Applicants respectfully submit that Isono does not teach or suggest all elements of Applicants' independent claim 1. Because dependent claim 5 contains all the features of independent claim 1, the failure of Isono to teach or suggest all limitations of claim 1 prevents Isono from teaching or suggesting all limitations of claim 5, even when combined with Hassler.

With respect to independent claim 26, the claim, as amended, includes the features that (i) the first intermediate insulation layer comprises at least one slot formed into a lateral end thereof, (ii) the second intermediate insulation layer comprises at least one slot formed into a lateral end thereof and corresponding to the first intermediate insulation layer slot, and (iii) the slots are metallized on the vertical face. As discussed previously, Isono does not disclose, teach, or suggest at least these features. Applicants submit that Hassler also does not disclose, teach, or suggest at least these features. For these reasons, independent claim 26 is not made obvious by Isono in view of Hassler. Claim 27 depends from independent claim 26 and includes all the limitations of independent claim 26.

Accordingly, Applicants respectfully submit that claims 5, 26, and 27 are patentable over Isono and Hassler, and thus request the withdrawal of this rejection.

D. Claim 28.

In the Final Office Action, claim 28 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Isono in view of Hassler and further in view of Ulm. Applicants respectfully traverse the rejections and assert that claim 28 is patentable over Isono, Hassler, and Ulm.

As Applicants have explained above in Sections IV.C., Isono in view of Hassler does not teach a fuse having first and second intermediate insulation layers, each comprising at least one slot formed into a lateral end thereof, wherein the corresponding slots are metallized on the vertical face. Accordingly, Applicants respectfully submit that Isono and Hassler do not teach or suggest all elements of Applicants' independent claim 26. Because dependent claim 28 contain all the features of independent claim 26, the failure of Isono and Hassler to teach or suggest all limitations of claim 26 prevents Isono and Hassler from teaching or suggesting all limitations of claim 28, even when combined with Ulm. Accordingly, Applicants respectfully submit that claim 28 is patentable over Isono, Hassler, and Ulm, and thus request the withdrawal of this rejection.

E. Claim 29.

In the Final Office Action, claim 29 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Isono in view of Hassler and further in view of Onishi. Applicants respectfully traverse the rejections and assert that claim 29 is patentable over Isono, Hassler, and Onishi.

As Applicants have explained above in Sections IV.C., Isono in view of Hassler does not teach a fuse having first and second intermediate insulation layers, each comprising at least one slot formed into a lateral end thereof, wherein the corresponding slots are metallized on the vertical face. Accordingly, Applicants respectfully submit that Isono and Hassler do not teach or suggest all elements of Applicants' independent claim 26. Because dependent claim 29 contain all the features of independent claim 26, the failure of Isono and Hassler to teach or suggest all limitations of claim 26 prevents Isono and Hassler from teaching or suggesting all limitations of claim 29, even when combined with Onishi. Accordingly, Applicants respectfully submit that claim 29 is patentable over Isono, Hassler, and Onishi, and thus request the withdrawal of this rejection.

V. No Waiver.

All of Applicants' arguments and amendments are without prejudice or disclaimer. Additionally, Applicants have merely discussed exemplary distinctions from the cited documents. Other distinctions may exist, and Applicants reserve the right to discuss these additional distinctions in a later Response or on Appeal, if appropriate. By not responding to additional statements made by the Examiner, Applicants do not acquiesce to the Examiner's additional statements, such as, for example, any statements relating to what would be obvious to a person of ordinary skill in the art. The exemplary distinctions discussed by Applicants are sufficient to overcome the anticipation and obviousness rejections.

FEE

Applicants believe that a fee is not required in association with the filing of this Response. However, should the Commissioner deem that any additional fees are due, including any fees for extensions of time, the Commissioner is authorized to debit such fees from, or to credit any overpayments to, USPTO Deposit Account Number 50-3786, Reference No. 13682.105201.

SUMMARY

In light of the above remarks and arguments, Applicants respectfully request reconsideration and withdrawal of the outstanding objections and rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Should the Examiner have any questions, comments, or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone.

Respectfully submitted,



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Parul P. Kamdar, Ph.D.
Registration No. 60,270
King & Spalding LLP
1100 Louisiana Street, Ste. 4000
Houston, TX 77002-5213
Telephone: 713.276.7308
Facsimile: 713.751.3290
E-mail: pkamdar@kslaw.com